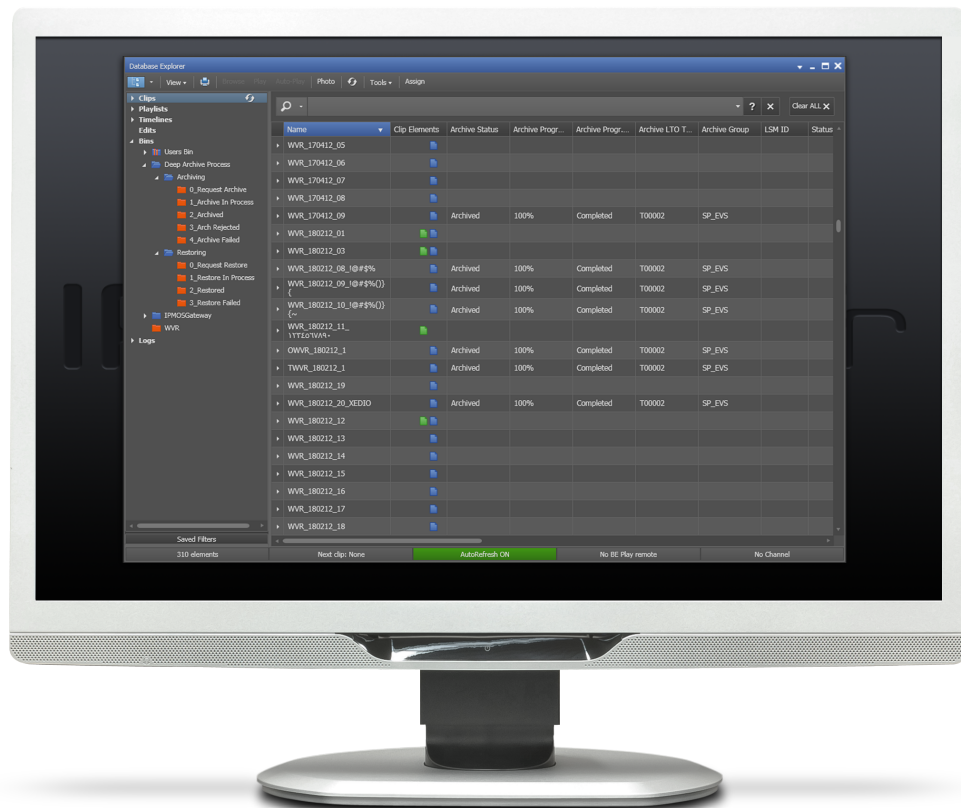


CONFIGURATION MANUAL

TAPE STORAGE CONTROLLER

Version 5.1 - June 2014



IP2 Archive





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Improvement Requests

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.com.

Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: <http://www.evs.com/contacts>.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: <http://www.evs.com/downloadcenter>.



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What's New

In the Configuration Manual of the Tape Storage Controller the icon  has been added on the left margin to highlight information on new and updated features.

The changes linked to new features in version 5.1 are listed below.

The version of the application and the validity of the license are checked at startup.

- See section "Version and License Check" on page "3".

The version of the ADAwrapper.dll and DivaApiwrapper.dll is checked.

The splash screen now also displays the database name and version and the date until which the license is valid.

- See section "Main Window Overview" on page "5".

The Retrieve Tape ID task has been implemented for ADA and FlashNet.

- See section "Overview Tasks" on page "8".

Partial restore for ADA has been implemented.

The settings have been rearranged.

An e-mail notification is sent when no empty tapes are available in the tape library.

- See section "MAD Options Tab" on page "12".

An e-mail notification is sent when an empty tape is available in the tape library. The ID of the tape to be inserted is mentioned.

- See section "MAD Options Tab" on page "12"

An e-mail notification is sent when the LTO tape containing the file that needs to be restored is offline. This has been implemented for FlashNet and DIVA.

- See section "MAD Options Tab" on page "12".

Support for multiple tape groups has been implemented for ADA, FlashNet and DIVA.

Support for loresless workflow has been implemented.

1. About the Application

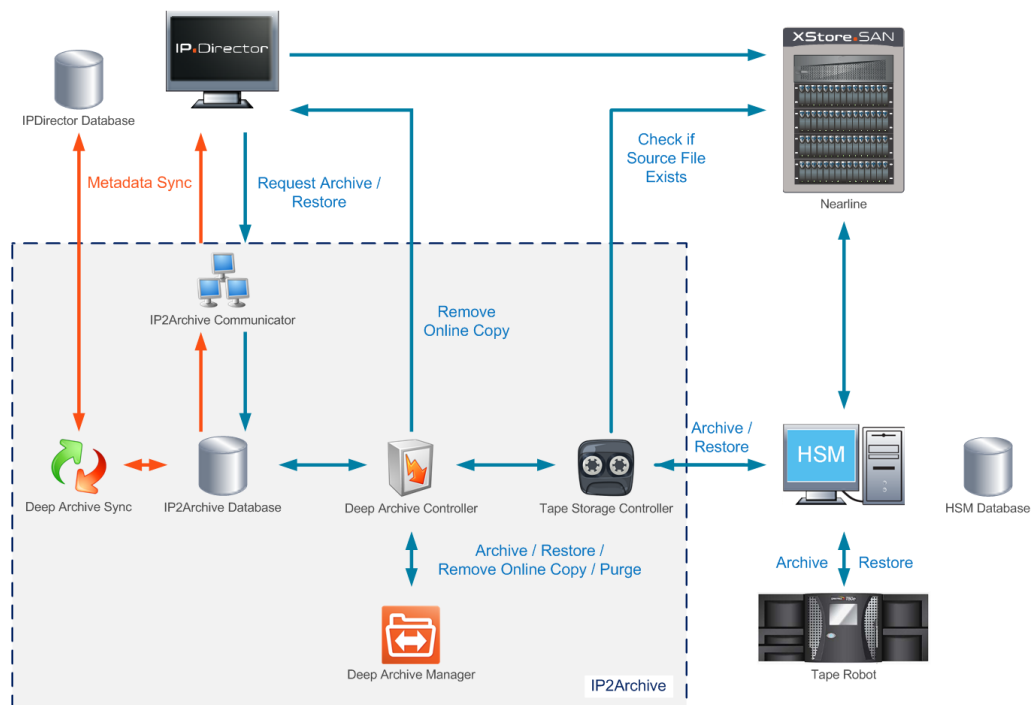
General Description

Tape Storage Controller is an automated application or robot that interacts with the hierarchical storage management system to drive all the archive, (partial) restore and purge requests originating from the Deep Archive Controller.

Tape Storage Controller interfaces with the following HSM systems: Atempo's Digital Archive, SGL's FlashNet, Front Porch Digital's DIVArchive.

Workflow

The diagram below shows the interactions between IPDirector and the various IP2Archive software components, and between the various IP2Archive software components and the HSM system. When IP2Archive interfaces with XenData's Digital Archive, Tape Storage Controller is replaced by File Transfer Daemon.



2. Multiple Timecode Support

The application supports the following SMPTE timecodes:

- PAL
- NTSC non-drop frame
- NTSC drop frame

3. Starting the Application

3.1. After Installation

Double-click the Tape Storage Controller icon to start the application. You can also start the application by double-clicking the executable file (.exe) in the installation folder.

The splash screen appears.



The application logs into the database. Then, the Settings window appears allowing you to configure the application.

See section "Configuring the Application" on page "9".

3.2. After Configuration

Double-click the Tape Storage Controller icon to start the application. You can also start the application by double-clicking the executable file (.exe) in the installation folder.

The splash screen appears. The application logs into the database.

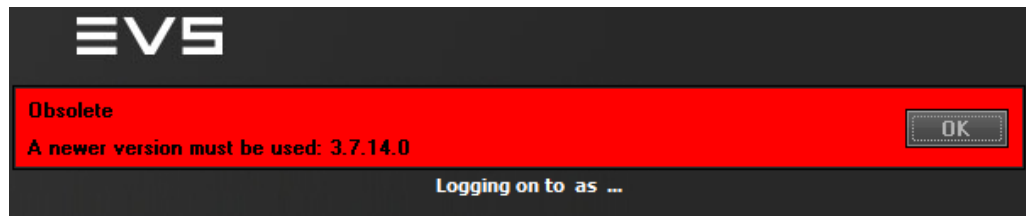
Then, the main window opens. After a time interval defined in the settings, the application automatically starts performing its active tasks.

3.3. Version and License Check

Introduction

NEW !

The version of the application and the validity of the application license will be checked when the application logs into the IP2Archive database at startup. The status of the version or the license that is returned is displayed on the application splash screen.



Version and License Statuses

The following version and license statuses can be returned:

Status	Description	Color	Action Required
Current	The actual version of the application.	no color	No action required. The application starts automatically.
Outdated	A newer version of the application exists, but this version can still be used. The application version that should be installed is displayed.	red	Click OK to start the application at once. By default, the application starts automatically after 10 seconds.
Obsolete	A newer version of the application exists and must be used. This version may not be used anymore. The application version that should be installed is displayed.	red	Click OK to continue. The application shuts down.
Undefined	The version of the application is not defined in the MAD database.	black	Click OK to continue. The application shuts down.

Status	Description	Color	Action Required
Beta	A test version.	blue	Click OK to start the application. By default, the application starts automatically after 10 seconds.
License About to Expire	The license period is about to expire. It is shown in how many days the license will expire. Contact your system administrator or check the License Controller manual.	orange	Click OK to start the application at once. By default, the application starts automatically after 10 seconds.
License Expired	The license period has expired. The date when the license expired is displayed. Contact your system administrator or check the License Controller manual.	red	Click OK to continue. The application shuts down.
No Valid License	There was no valid license found in the database. Contact your system administrator or check the License Controller manual.	red	Click OK to continue. The application shuts down.
Maximum Licenses Reached	The maximum number of instances <NUMBER OF LICENSES> for the license has been reached. Contact your system administrator or check the License Controller manual.	red	Click OK to continue. The application shuts down.

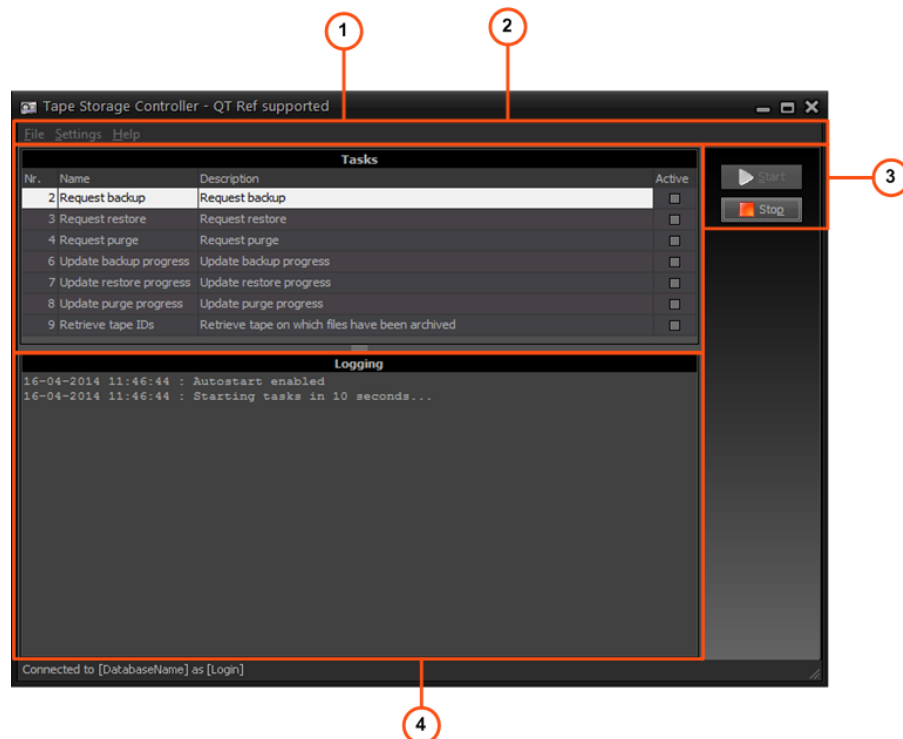
3.4. Main Window Overview

General Description

The main window displays the active and non-active tasks of the application. It allows you to monitor the tasks that are being performed. It also allows you to manually start and stop the application or a particular task.

Illustration

The main window contains the areas highlighted on the screenshot below:



Area Description

The table below describes the various parts of the main window:

Part	Name	Description
1.	Menu bar	The menu bar contains three menus: File , Settings and Help .

Part	Name	Description
2.	Tasks pane	The Tasks pane contains the name and a brief description of the tasks performed by the application. Only the tasks that were activated by you in the System settings will be performed at start-up. If you want to manually run certain tasks for test purposes, you have to stop the application, select the corresponding check box in the Active column, and then click the Start button. This button only becomes available after you have clicked the Stop button.
3.	Start/Stop buttons	These buttons are used to manually start and stop the application.
4.	Log pane	The Log pane lists application events (= logs) and can be useful. The date and time of each event is displayed. These logs are also saved in the log files.

Menu Bar

The menu bar contains three menus: **File**, **Settings** and **Help**.

File Menu

The **File** menu contains only one command: **Exit**. It is used to exit the application. Click the **File** menu or use the keyboard shortcut keys **ALT + F** or **F10 + F** to open it. Click **Exit** or use the keyboard shortcut key **X** to exit the application.

Settings Menu

The **Settings** menu does not contain any commands. It immediately gives access to the application settings. Click the **Settings** menu or use the keyboard shortcut keys **ALT + S** or **F10 + S** to access the settings.

Help Menu

NEW !

With the **About** command the application about box can be opened. The about box displays the application software version, the date until which the application license is valid, the name and version of the database the application is logged on to and the login name used.

Click **About** or use the keyboard shortcut key **A** to open the about box.



Note

These menus only become available after you have clicked the **Stop** button.



3.5. Overview Tasks

NEW !

The table below gives a brief description of the tasks performed by Tape Storage Controller.

Number	Task	Description
2	Request Backup	Checks the IP2Archive database for archive requests and commands the HSM to start the archiving process.
3	Request Restore	Checks the IP2Archive database for restore requests and commands the HSM to start the restore process.
4	Request Purge	Checks the IP2Archive database for purge requests and commands the HSM to start the purge process.
6	Update Backup Progress	Checks the status and progress of the archive jobs and synchronizes this information with the IP2Archive database.
7	Update Restore Progress	Checks the status and progress of the restore jobs and synchronizes this information with the IP2Archive database.
8	Update Purge Progress	Checks the status and progress of the purge jobs and synchronizes this information with the IP2Archive database.
9	Retrieve Tape IDs	Retrieves the LTO tape ID from the HSM after the files have been archived to LTO.

**Note**

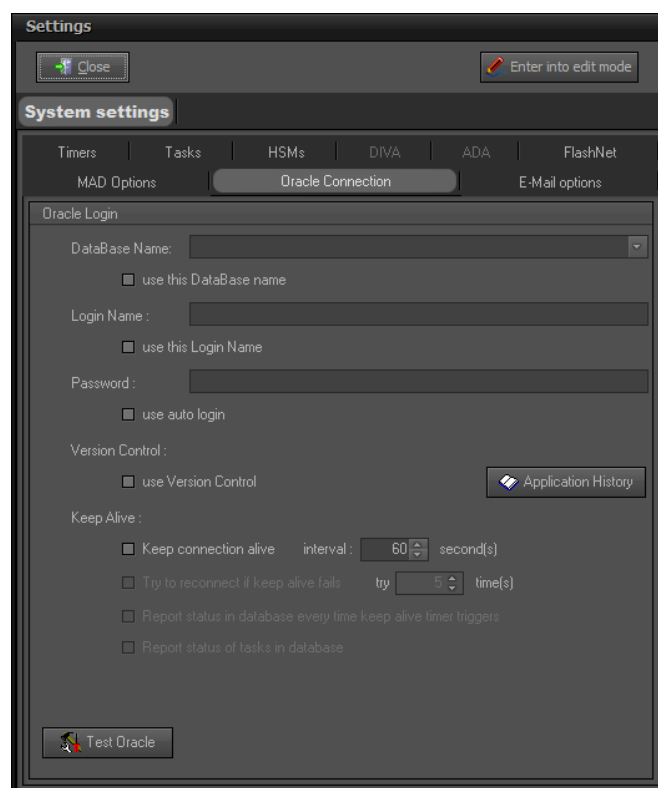
For performance reasons, two or more instances of the Tape Storage Controller can be installed. Each instance can be configured to perform only a specific set of the tasks mentioned above. For example, there could be an instance that only performs the archive and purge tasks, and an instance that only performs the restore tasks.

4. Configuring the Application

4.1. Settings Window

Opening the Settings Window

The Settings window allows you to configure your application. The first time the application is launched after it has been installed, the Settings window opens automatically.

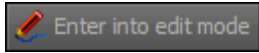


The Settings window can also be accessed through the **Settings** menu in the main window. To make this menu available, click the **Stop** button. The application will stop performing its tasks.

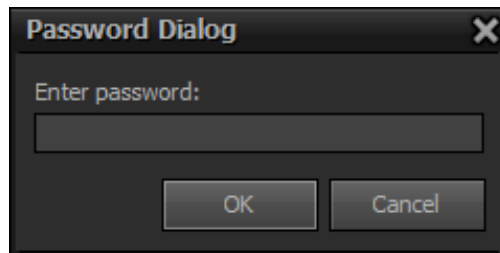
Edit Mode

To be able to edit the settings, you first have to enter a password.

To put the Settings window into Edit Mode, proceed as follows:

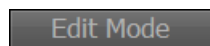
1. Click the **Enter Into Edit Mode** button .

A dialog box appears.



2. Enter the administrator password and then click **OK**.

The Settings window enters into Edit Mode.



Note

Certain settings are read-only and cannot be configured. These can only be modified in the Configurator application. Other settings have to be configured locally.

4.2. System Settings

4.2.1. Overview System Settings Subcategories

The System settings are divided into the following subcategories:

- MAD Options
- Oracle Connection
- E-Mail Options
- Timers
- Tasks
- HSMs
- DIVA
- ADA
- FlashNet

For each subcategory a tab is provided.

4.2.2. MAD Options Tab

The MAD Options tab contains the settings that configure the log file management and the archive and restore process.

Configuring the Archive Process

The settings that configure the archive process are read-only and can only be configured from within the Configurator. See the Configurator user manual for more information.

Sorting Archive Requests

If the setting **Smart Sort Requests by Group** is enabled, Tape Storage Controller will sort all archive requests by tape group and request them in order to the HSM (DIVA, ADA, XenData, FlashNet). When requests of the same tape group are processed sequentially, the tape robot will not have to change tapes that often. By default, this setting is selected. For this setting to be effective the 'max Archive' setting has to be bigger than 2, so sorting by tape group matters.

Checking for Available Tapes

If a user tries to archive a clip and all tapes belonging to a particular tape group are full and no empty tape is available in the LTO tape library, the clip will go into error in the Archive Queue tab of the Deep Archive Manager, and the following error message will be displayed:

- When interfacing with DIVA: 'No migrate archive service: No online tape fits the requirements. Please insert an empty tape and retry'.
- When interfacing with ADA: 'No Media available in scratch media group. Please insert empty tapes and retry'.



- When interfacing with Flashnet: 'There is no empty tape available for <VARID>. Please insert an empty tape and retry'.

Tape Storage Controller will also send an e-mail message with the following error message to the recipients as configured in the External Mail tab of the E-Mail Options tab:

- When interfacing with DIVA: 'There is no empty tape available for <VARID>. Please insert an empty tape and retry.'
- When interfacing with ADA: 'No Media available in scratch media group. Please insert empty tapes and retry.'
- When interfacing with SGL: 'There is no empty tape available for <VARID> in group <GROUP_ID>. Please insert an empty tape and retry.'

Checking for Ejected Tapes with Space Left

If the setting **Do Not Archive to Empty Tape If There Is an Ejected Tape With Space Left** is enabled, Tape Storage Controller will check the database if there is a tape available in the LTO tape library with enough space left. If this is not the case, Tape Storage Controller will then check in the database if there is an ejected tape with enough space left. If this is the case, Tape Storage Controller will send the following e-mail message to the recipients as configured in the External Mail tab of the E-Mail Options tab:

Application: Tape Storage Controller

There is an ejected tape with enough space left for <VARID>

Please insert tape <TAPEID> and retry.

This message will also appear in the Archive Queue tab of the Deep Archive Manager. The corresponding clip will go into error. The user will have to wait until the tape has been inserted in the LTO tape robot and then retry to archive the file.

If there are no ejected tapes with space left, or if this setting is not selected, DIVA will send an error message. Tape Storage Controller will enter this message in the database. Tape Storage Controller will send an e-mail with an error message to the recipients as configured in the External Mail tab of the E-Mail Options tab. The clip will go into error in the Archive Queue tab of the Deep Archive Manager and an error message will be displayed. See 'Checking for Available Tapes' above.



Note

This setting is only selected when Tape Storage Controller is used in a MAD setup and when interfacing with DIVA.

Marking Files as Archived

If the setting **Mark File as 'Archived' Only After It Has Been Written to Tape** is enabled, Tape Storage Controller will wait to mark a file as being archived in the IP2Archive database until the file has been written to LTO tape. In the Deep Archive Manager GUI the file will then be moved to the Archived tab only after the file has been written to LTO tape. By default, this setting is selected.

If the setting **Check if Source File Exists** is enabled, Tape Storage Controller will first check if the file to be archived really exists. If the file does not exist, it will not start the archive process. The clip will go into error in the Archive Queue tab of the Deep Archive Manager and the following error message will be displayed: 'File not found: <FILENAME>.''

Clear this setting if Tape Storage Controller has no access to the storage location of the source file. By default, this setting is selected.

Configuring the Restore Process

The settings that configure the restore process are read-only and can only be configured from within the Configurator. See the Configurator user manual for more information.

Sorting the Restore Requests

If the setting **Smart Sort Requests by Group** is enabled, Tape Storage Controller will sort all restore requests by tape group and request them in order to the HSM (DIVA, ADA, XenData, FlashNet). When requests of the same group are processed sequentially, the tape robot will not have to change tapes that often. However, the priority level of the files won't be considered then. By default, this setting is selected.

Configuring the Log File Management

To be able to configure the log file management, you have to select the **Log Files** check box.

In the **Directory** field you can enter the path of the log storage directory or you can browse for it by clicking . By default, the logs will be saved in the directory: C:\EVSLogs\MAD\[Application name].

If the **A New Log Every Day** check box is selected, a new log file is started every day. By default, this option is not selected.

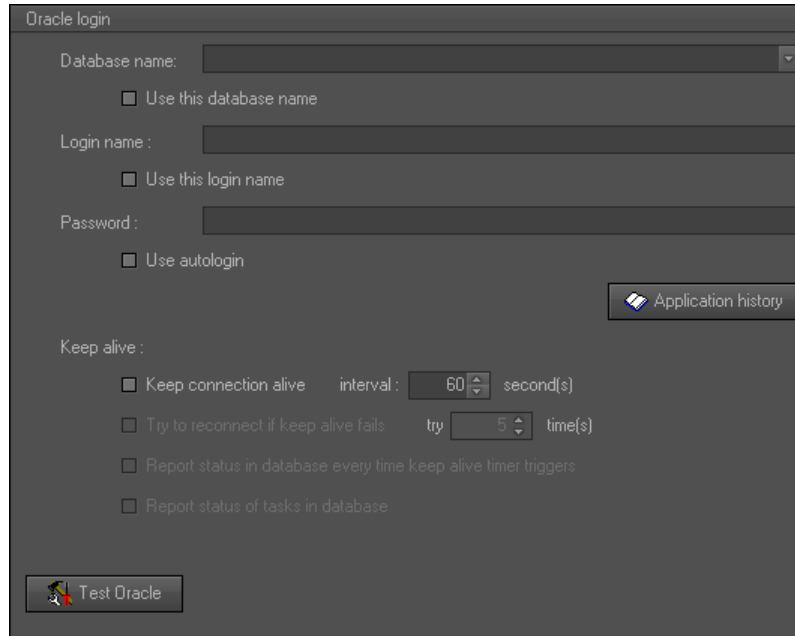
You can also specify a time interval (in days) after which the logs should be removed from the log storage directory. If you enter '-1', the logs are never removed from the storage directory. By default, the logs are cleaned up after 90 days.

Configuring the LogMemo Size

In the LogMemo group box you can specify the maximum number of lines retained by the Log pane. By default, the Log pane displays 256 lines.

4.2.3. Oracle Connection Tab

The Oracle Connection tab allows you to configure the connection with the Oracle database.



The screenshot shows the 'Oracle login' dialog box. It contains the following fields and options:

- Database name:** A text input field with a dropdown arrow.
- ☐ Use this database name
- Login name :** A text input field.
- ☐ Use this login name
- Password :** A text input field.
- ☐ Use autologin
- Application history:** A button with a document icon.
- Keep alive :**
 - ☐ Keep connection alive interval : 60 second(s)
 - ☐ Try to reconnect if keep alive fails try 5 time(s)
 - ☐ Report status in database every time keep alive timer triggers
 - ☐ Report status of tasks in database
- Test Oracle:** A button with a test icon.

Entering the Database Name

In this field you have to enter the name of the database the application has to connect to.

If the **Use This Database Name** check box is selected, the name of the database will automatically appear in the Oracle login dialog box at start-up.

Entering the Login Name

In this field you have to enter a login name. If the **Use This Login Name** check box is selected, the login name will automatically appear in the Oracle login dialog box at start-up.

Entering a Password

In this field you have to enter a password. If the **Use Auto Login** check box is selected, the application automatically logs into the selected database at start-up. The Oracle login dialog box does not appear.

Checking Application History

By clicking the **Application History** button, you can open a chronological list of all software versions of the application. To get more details about each version (creation date, name of programmer, status, additional remarks), you have to click + next to the version number.

Activating Keep Alive

If the option **Keep Connection Alive** is selected, a message is sent to the database at regular time intervals to avoid idle connections from being closed by the firewall. These intervals can be set by you.

If the option **Try to Reconnect if Keep Alive Fails** is selected, the application will try a number of times to reconnect with the database.

If the option **Report Status in Database Everytime Keep Alive Timer Triggers** is selected, the status of the connection is reported in the database each time the Keep Alive Timer sends a trigger to send a Keep Connection Alive message.

If the option **Report Status of Tasks** is selected, the status of the tasks (ok or not ok) is reported to the database.

Testing the Oracle Connection

The **Test Oracle** button allows you to check the validity of the database name, login and username you entered.

If these data are valid, then the following message appears next to the **Test Oracle** button: 'OK'.

If the login name or password is invalid, then a message box appears with the following message: 'ORA-01017: invalid username/password; logon denied'.

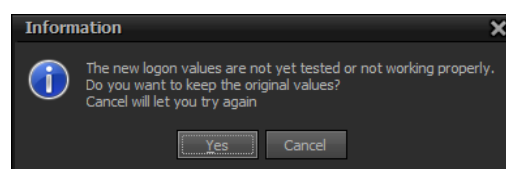
If the database name is invalid, then a message box appears with the following message: 'ORA-12154:TNS: could not resolve the connect identifier specified'.

If you omit the password, then a message box appears with the following message: 'ORA-01005: null password given; logon denied'.

If you do not enter a database name, login and username, then a message box appears with the following message: 'ORA-12560: TNS: protocol adapter error'.

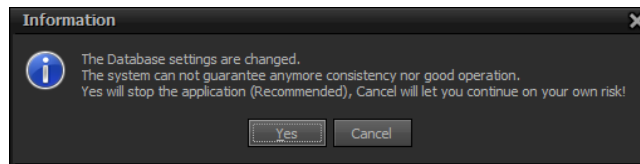
You can also check the software version of the application by clicking the **Test Oracle** button. If the software version is up-to-date, then the following message appears: 'Current– The Current Version'. If the software version is outdated, then the following message appears: 'Unknown Version Application! Please contact the EDP department.'

If you close the Settings window without testing the validity of the database name, login and username you just entered, then a message box appears.



If you click **Yes**, then the Settings window is closed and the original values are restored. If you click **Cancel**, then the Settings window does not close and you can test the values by clicking the **Test Oracle** button.

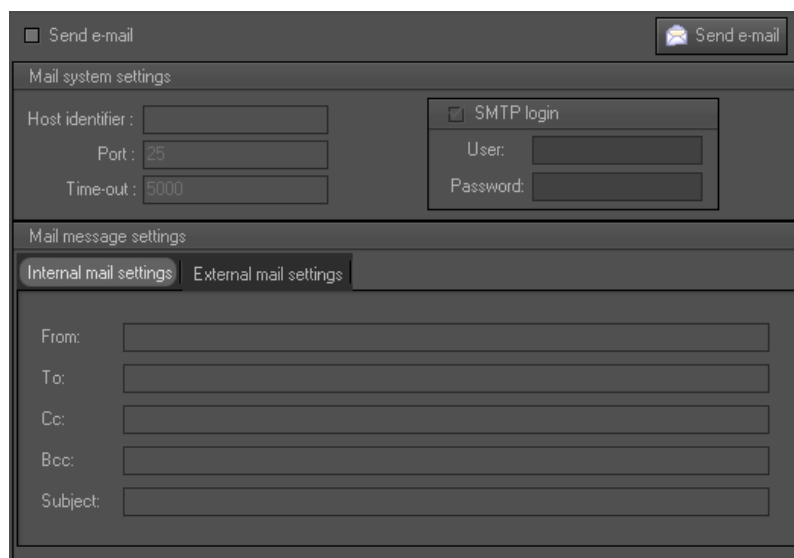
If you change the current database settings, test the connection and then close the Settings window, a message box will appear.



If you click **Yes**, the application is stopped and closed. A manual restart will be required. Click **Cancel** to continue.

4.2.4. E-Mail Options Tab

In case the application is capable of sending e-mail messages, the E-Mail Options tab will allow you to configure an e-mail account, enter the e-mail address of the default sender and recipients, and enter a default e-mail subject. If the application is not capable of sending e-mail messages, the settings in this tab cannot be used.



The "E-Mail Options Tab" configuration window includes a "Send e-mail" checkbox at the top left and a "Send e-mail" button at the top right. Below these are two main sections: "Mail system settings" and "Mail message settings".

Mail system settings:

- Host identifier: [text box]
- Port: 25 [text box]
- Time-out: 5000 [text box]
- ☐ SMTP login
- User: [text box]
- Password: [text box]

Mail message settings:

Internal mail settings | External mail settings

From: [text box]
 To: [text box]
 Cc: [text box]
 Bcc: [text box]
 Subject: [text box]

To be able to configure the e-mail account, you have to select the **Send E-Mail** check box. The fields in the Mail System Settings and Mail Message Settings group box become available.

Configuring an E-Mail Account

In the Mail System Settings group box you have to enter the IP address and port number of the SMTP server and specify a timeout. In the SMTP Login group box you can enter a user name and password.

Configuring a Default E-Mail Message

The Mail Message Settings group box contains two tabs: Internal Mail Settings and External Mail Settings.

The Internal Mail Settings tab can be used to configure a default e-mail message that will be sent to the EVS developers and the customer when an error occurs.

The External Mail Settings tab can be used to configure a default e-mail message that will be sent to the customer to notify him about an error. In each tab you have to enter the sender's email address, the email address of the various recipients and a subject. It should be noted that this tab is not always used.

When you insert multiple e-mail addresses in any of the header fields, make sure you separate them by a comma.

To test the settings and manually send an e-mail message, click the **Send Mail** button.

For the new settings to take effect, close and restart the application. Check the TOM.ini file in the installation folder of the application for the e-mail addresses and subject entered here.

```
[General]
TemporaryFiles.Text=edtTemporaryFilesDir
EmailWanted.Checked=0
Port.Text=25
HostID.Text=
Timeout.Text=5000
SMTPLogin.Checked=1
MailUser.Text=
MailPasswd.Text=y1cwaD8b51hdk17uHq8knw==
MailPasswdUnicode.Text=79CJGqDro/FCD6AsFhtZkw==
MailFrom.Text=
MailTo.Text=
MailCC.Text=
MailBcc.Text=
MailSubject.Text=
ExternMailFrom.Text=
ExternMailTo.Text=
ExternMailCC.Text=
ExternMailBcc.Text=
ExternMailSubject.Text=
cbSaveScreenDumpUnhandledErrors.Checked=1
cbSaveUnforcedErrors.Checked=1
cbSaveScreenDumhandledErrors.Checked=1
cbAutomaticLogin.Checked=0
cbUseknownDatabase.Checked=0
cbUseThisLogin.Checked=0
chkKeepConnectionAlive.Checked=0
chkTryToReconnect.Checked=0
```

4.2.5. Timers Tab

The Timers tab allows you to set time intervals for some automated tasks.

Auto start	
Time before auto start (sec):	10
Perform tasks	
Time between tasks (sec):	30

Configuring Auto-Start

In the Auto Start group box you can specify the time interval after which the application automatically starts performing its tasks. By default, this is set to 10 seconds.

Setting a Time Interval Between Tasks

In the Perform Tasks group box you can specify the length of the time interval (in seconds) between two subsequent tasks. By default, this is set to 30 seconds.

4.2.6. Tasks Tab

The Tasks tab gives an overview of the active tasks.

Select the tasks that should be executed by default				
Number	Name	Description	Active by def.	Active
2	Request backup	Request backup	☐	☐
3	Request restore	Request restore	☐	☐
4	Request purge	Request purge	☐	☐
6	Update backup progress	Update backup progress	☐	☐
7	Update restore progress	Update restore progress	☐	☐
8	Update purge progress	Update purge progress	☐	☐
9	Retrieve tape IDs	Retrieve tape on which files have been archived	☐	☐

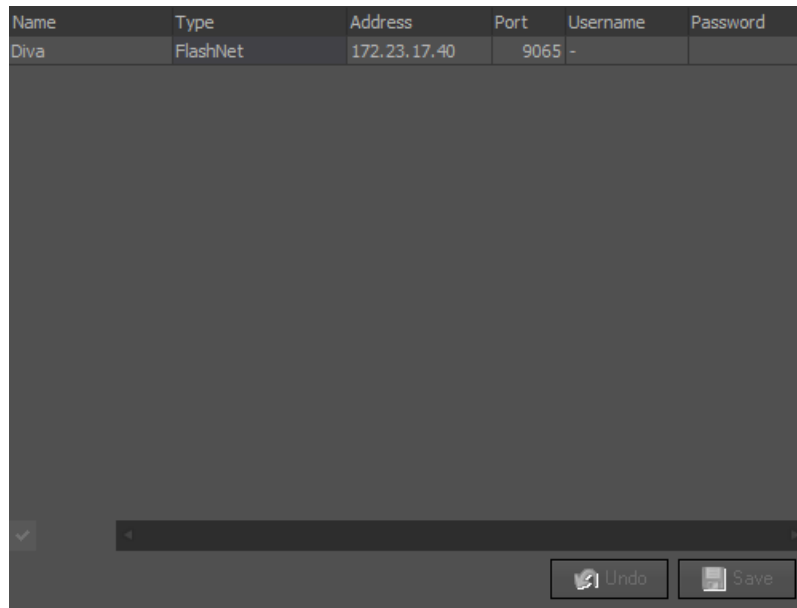
In the **Active by Default** column you can activate the tasks that must be performed by default at start-up by selecting the corresponding check box. The **Active** column displays the tasks that are currently selected in the main window.

4.2.7. HSMs Tab

The HSMs tab contains the settings that configure the communication between Tape Storage Controller and the hierarchical storage management system (HSM). The data entered here will automatically appear in the tab in the System settings that corresponds to the selected hierarchical storage management system.

The data is read-only and can only be modified in the Configurator application.

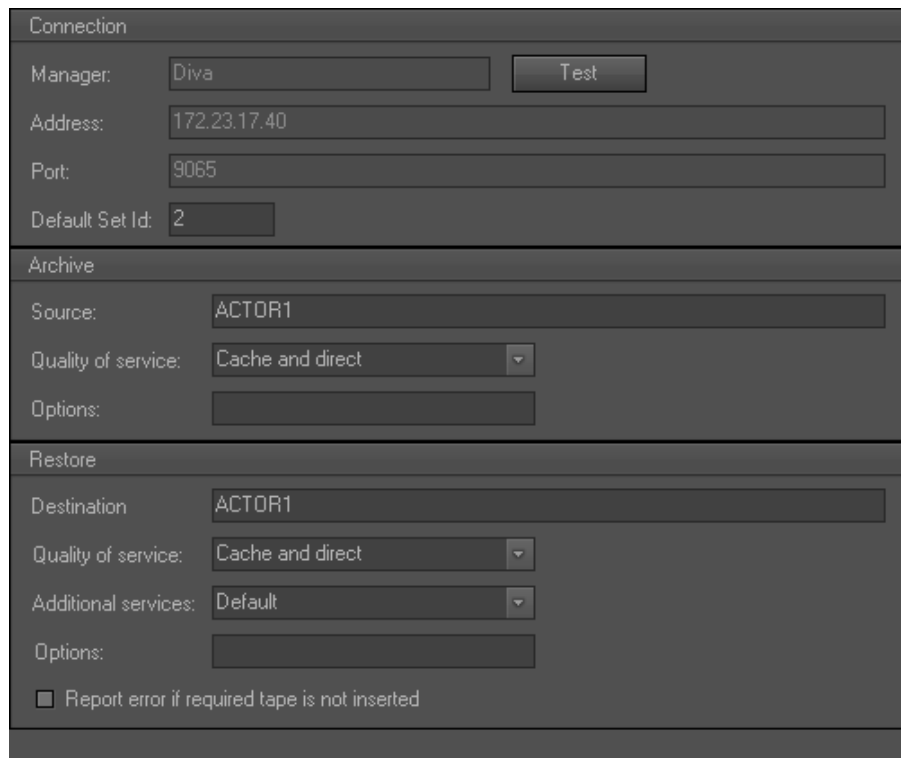
Name	Type	Address	Port	Username	Password
Diva	FlashNet	172.23.17.40	9065	-	



If a particular HSM is selected, the corresponding tab with settings specific to that HSM will become available.

4.2.8. DIVA Tab

The DIVA tab contains the settings that configure the connection between Tape Storage Controller and the DIVArchive system and also those that configure the archive and restore process performed by the DIVArchive. This tab only becomes available if DIVA has been selected as HSM type in the HSMs tab. See section "HSMs Tab" on page "20". These settings are read-only and can only be configured in the Configurator application.



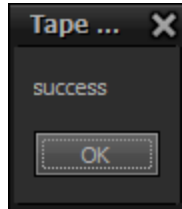
The screenshot shows the DIVA configuration interface. It is organized into three main sections: Connection, Archive, and Restore. The Connection section at the top has a 'Manager' field set to 'Diva', an 'Address' field with '172.23.17.40', a 'Port' field with '9065', and a 'Default Set Id' field with '2'. A 'Test' button is located next to the Manager field. The Archive section in the middle has a 'Source' field set to 'ACTOR1', a 'Quality of service' dropdown menu set to 'Cache and direct', and an empty 'Options' field. The Restore section at the bottom has a 'Destination' field set to 'ACTOR1', a 'Quality of service' dropdown menu set to 'Cache and direct', an 'Additional services' dropdown menu set to 'Default', and an empty 'Options' field. At the bottom of the Restore section, there is a checkbox labeled 'Report error if required tape is not inserted' which is currently unchecked.

Configuration Connection With DIVA

The Connection group box contains the following connection data:

- **Manager:** Name of the DIVArchive Manager. The DIVArchive Manager is the main component in a DIVArchive system. All archive operations are controlled and handled by the DIVArchive Manager.
- **Address:** IP Address of the management station running the DIVArchive Manager software component.
- **Port:** Listening port number of the DIVArchive Manager management station.
- **Default Set ID:** The tapes in the library are initially divided into sets, and are assigned a number called a Set ID. Set ID's allow to partition pools of tapes in a library and assign them for use with specific DIVArchive groups.

A **Test** button allows you to test the connection with the DIVArchive. If the connection is ok, the message 'Success' will appear.



Otherwise, an error message will appear.

Configuring the Archive Process

The Archive group box contains settings used to configure the archive process performed by the DIVArchive system.

The **Source** field contains the name of the system that has content intended to be transferred to DIVArchive, i.e. the nearline storage. This name is pre-defined in the DIVArchive source configuration.

The Quality of Service (QOS) parameter defines how a file is to be transferred to a DIVArchive tape.

The options for QOS are defined as follows:

- **Direct Only:** The material is written to tape immediately as it is being transferred from a destination. If no direct transfer service is available, the request will be aborted.
- **Cache Only:** The material is first transferred entirely from the source to cache storage, and then written to tape. If no cache service is available, the request will be aborted.
- **Direct and Cache:** If a direct transfer is not available (e.g. no Actor with direct transfer enabled is available), then cache transfer will be used instead.
- **Cache and Direct:** If cache transfer is not available (e.g. no Actor with cache storage is available), a direct transfer will be performed instead.
- **Default:** The QOS specified in the source configuration will be used.

By default, the option **Cache and Direct** is selected.

The **Options** field contains additional options that must be used for performing the transfer of data from the source to DIVA. These options supersede any options specified in the DIVA configuration database. Currently the possible values are:

- a null string to specify no options
- **-r:** Specifies that every name in filenamesList that refers to a directory must be scanned recursively. This also applies when a file path root is specified and '*' is used to designate the file(s) to be archived. This option may be used when archiving from a local source or from a standard FTP server.
- **-login:** Login used for some sources.
- **-pass:** Password in conjunction with the -login option for some sources.



Configuring the Restore Process

The Restore group box contains settings used to configure the restore process performed by the DIVArchive system.

Configuring the Transfer of the Restored File

The **Destination** field contains the name of the system that requires content to be transferred to it from DIVArchive. This name is pre-defined in the DIVArchive destination configuration.

The Quality of Service (QOS) parameter defines how a file is to be transferred from a DIVArchive tape to a destination.

The options for QOS are defined as follows:

- **Direct Only:** The material is transferred immediately to the source as it is being read. If no direct transfer service is available, the request will be aborted.
- **Cache Only:** The material is first transferred entirely to cache storage from tape, and then transferred to the destination. If no cache service is available, the request will be aborted.
- **Direct and Cache:** If a direct transfer is not available (e.g. no Actor with direct transfer enabled is available), then cache transfer will be used instead.
- **Cache and Direct:** If cache transfer is not available (e.g. no Actor with cache storage is available), a direct transfer will be performed instead.
- **Default:** The QOS specified in the destinations configuration will be used.

The following additional services are available:

- **Default:** Operate as per default setting in the Manager configuration;
- **Do Not Overwrite:** Do not overwrite existing files on the destination server.
- **Do Not Check Existence:** Do not check the existence of the clip on the server.
- **Delete and Write:** Force delete and rewrite if object exists on server.

The **Options** field contains additional options that must be used for performing the transfer of data from DIVA to the destination. These options supersede any options specified in the DIVA configuration database. Currently the possible values are:

- a null string to specify no options.
- **-login:** Login used for some sources.
- **-pass:** Password in conjunction with the **-login** option for some sources.

Checking and Notifying When Requested Tape is Not Available

If the setting **Report Error If Required Tape Is Not Inserted** is selected and a request is made to restore a file that is stored on a LTO tape that is not inserted in the tape library, the corresponding clip will go into error in the Restore Queue tab of the Deep Archive Manager and the following error message is displayed:

'The tape for <FILENAME> is not inserted in the tape robot.
Please insert tape <TAPE_ID> and retry'.

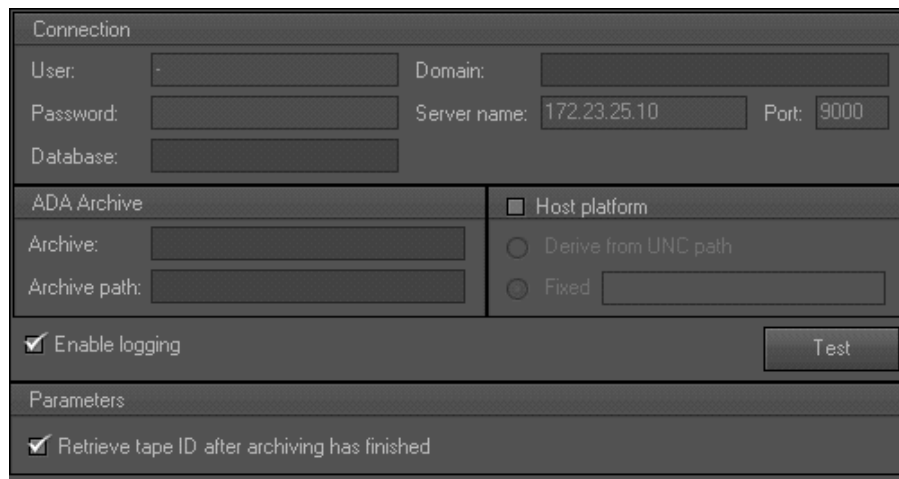
The user can retry restoring the file after the required tape has been inserted. If the setting is not selected, no error will be reported if an LTO tape is not inserted. By default, this setting is not selected.

Tape Storage Controller will send an e-mail message with the same error message to the recipients as defined in the External Mail tab of the E-Mail Options tab. This error message will also be displayed in the Archive Progress Message field in IPDirector.

4.2.9. ADA Tab

The ADA tab contains the settings that configure the communication with the Atempo Digital Archive (ADA) system. This tab only becomes available if ADA is selected as HSM type in the HSMs tab. See section "HSMs Tab" on page "20".

These settings are read-only. They can only be modified in the Configurator application.



Configuration Connection With ADA

In the Connection group box the following data is automatically entered:

- **User:** Name of the user as defined in Atempo Digital Archive.
- **Domain:** Windows domain name.
- **Password:** Password necessary to log into Atempo Digital Archive.
- **Server Name:** Name of the Atempo Digital Archive Server to which Tape Storage Controller will connect. You have to use the machine name.
- **Port:** Number of the port the Atempo Digital Archive Server will listen for requests. It is port number 80 by default.
- **Database:** Database instance used for Atempo Digital Archive. It is called ADA by default.

Specification of the ADA Archive

In the ADA Archive group box the following data is automatically entered:

- **Archive:** Name of the project archive created in Atempo Digital Archive. A project archive is shared and can be accessed by several users defined by the Administrator.
- **Path:** Folder of the project archive which mirrors the location of the data on the source platform. This folder has a path of the structure: <source_machine>\<source_machine_OS>\root_path_on_source>.

Specification of the Host Platform

A host platform is an archiving platform where the source data to be archived is located. Depending on the setup, the settings in the Host Platform group box will be enabled or not. The host platform name, i.e. the network name of the machine hosting the data, can either be derived from the UNC path of the storage or this can be a fixed name. The first option is used when there are multiple storages, the second option is used when there is only one storage.

Enable Logging

If the option **Enable Logging** is selected, an extensive log will be kept of the communication between Tape Storage Controller and the Atempo Digital Archive Server. Click the **Test** button to test this option. By default, this option is selected.

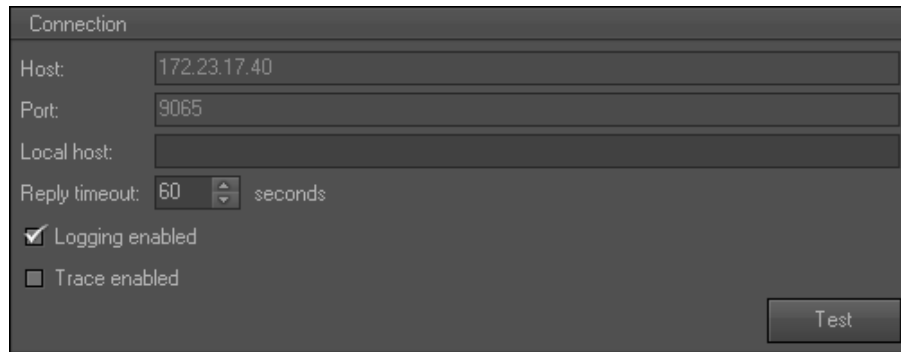
Enable Retrieval of LTO Tape ID

If the option **Retrieve Tape ID After Archiving Has Finished**, Tape Storage Controller will retrieve from the ADA database the ID of the LTO tape which contain the archived files. By default, this option is selected.

4.2.10. FlashNet Tab

The FlashNet tab contains the settings that configure the communication with the FlashNet system. This tab only becomes available if FlashNet is selected as HSM type in the HSMs tab. See section "HSMs Tab" on page "20".

Most of the settings in this tab are read-only. They can only be configured in the Configurator application.



The image shows a configuration window titled "Connection". It contains the following fields and controls:

- Host:** A text field containing "172.23.17.40".
- Port:** A text field containing "9065".
- Local host:** An empty text field.
- Reply timeout:** A spinner control set to "60" with the unit "seconds".
- Logging enabled:** A checked checkbox.
- Trace enabled:** An unchecked checkbox.
- Test:** A button located at the bottom right of the window.

The following connection data is entered:

- **Host** : The IP address or machine name of the FlashNet server.
- **Port**: The listening port number of the FlashNet server. The default port number is 8199.
- **Local Host**: The IP address or machine name of the server that hosts Tape Storage Controller. This field can still be configured locally.

The **Reply Timeout** field displays how long (expressed in seconds) Tape Storage Controller will wait for the FlashNet server to respond after making connection before giving an error . By default, this is set to 60 seconds.

If the **Logging Enabled** check box is selected, extra logs related to FlashNet will be added to the application log files. By default, this option is selected.

If the **Trace Enabled** check box is selected, the XML communication between Tape Storage Controller and FlashNet is added to the log files. By default, this option is not selected.

The **Test** button can be used to test the connection with the FlashNet server.

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